Application No.: 10/786, ₹47 Amendment dated 17 August 2006 Reply to Office Action of 18 May 2006

## **REMARKS**

In the Office Action mailed May 18, 2006, Claim 1 was rejected under 35 USC 102(b) as being anticipated by or, in the alternative, under 35 USC 103(a) as being obvious over Dirkzwager. As noted by the Examiner, Dirkzwager discloses a process for the preparation of styrene comprising the dehydration of 1-phenylethanol in the presence of a dehydration catalyst where the catalyst consists of shaped alumina catalyst particles having a surface area (BET) in the range of from 80 to 140 m^2/g and a pore volume (Hg) in the range 0.35 to 0.65 ml/g.

Claim 1 is directed to a process for the preparation of styrene in which the dehydration catalyst comprises shaped alumina catalyst particles having a surface area (BET) of from 80 m^2/g to 140 m^2/g and a pore volume of more than 0.65 ml/g. Accordingly, the pore volume of the claimed catalyst does not overlap the pore volume range disclosed in Dirkzwager. Thus, Claim 1 is not anticipated.

Further, as illustrated in the examples of the present application, the present invention provides superior results when compared to the process of Dirkzwager. In particular, comparative examples 2 and 3 utilize catalyst within the ranges set forth in Dirkzwager. In comparative example 2, the pore volume was 0.57 ml/g and in comparative example 3, the pore volume was 0.44 ml/g. As shown in Table 1, the catalyst made in accordance with Dirkzwager showed a decrease in conversion percentage after the process had been run for over 100 hours. In comparative example 2, the experiment was conducted for 120 hours and in comparative example 3, the experiment was stopped after 113 hours because of the significant drop in conversion percentage. The claimed process on the otherhand showed very little drop in conversion percentage after 120 hours.

In view of the foregoing, Applicants submit that the claimed invention provides superior results when compared to the Dirkzwager catalyst and

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process. Accordingly, it is respectfully submitted that the claimed invention would not have been obvious in view of Dirkzwager.

Claims 2-4 all depend directly or indirectly from Claim 1 and are believed to be patentable for the same reasons as Claim 1.

In view of the foregoing, Applicants respectfully request reconsideration and allowance of this case. Should the Examiner find any impediment to the allowance of the case, which could be corrected by telephone interview with the undersigned, the Examiner is requested to initiate such an interview.

Respectfully submitted,

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